# 4

# SHOW AND TELL

## Displays

People visit museums to see objects—some familiar, others that few will have seen before. In some museums nowadays it is also possible to touch some of these objects. Always the experience is direct and personal. People love to see fur and fabric, wood and stone, gems and steel. Good museum displays are to be enjoyed; and they are a short-cut to knowledge—gained through the discovery of the significance of objects.

During the 19th and early 20th centuries, museums everywhere displayed row upon row of specimens—possibly to advertise the size of the collection. Certainly, this style of display showed diversity, but it showed little else. However, museums have since had to compete with other entertainments to keep their audiences and gradually, around the world, the style of museum displays has changed. Fortunately, their educational role now recognised, museums are better funded than once they were. Thus, they are able to take advantage of new approaches to design, and new materials and technologies to improve the quality of their displays.

There is no doubt that for much of its history the Queensland Museum's displays were cramped, staff and expertise were lacking, and there were critical shortages of funds. However, from 1910 when Hamlyn-Harris became director, the institution has been served by a succession of able taxidermists and preparators whose standards have been high and who steadily improved the quality of the displays throughout the galleries.

## A Collection of Objects

There is no information surviving today on the displays in the old Windmill on Wickham Terrace. It was a collection and assemblage area that was organised by Charles Coxen, with the assistance of other members of the Queensland Philosophical Society, and possibly his wife, Elizabeth. Probably at that early stage everything in the collection was displayed. We know that there were shells and birds that Coxen, ornithologist H.C. Rawnsley and taxidermist and collector E. Waller had contributed; and there was a microscope donated by C. Tiffin[1]. In 1863 two cabinets of insects were purchased that were supplemented with some from Silvester Diggles (see Chapter 9). A case of fossils had been donated by J.K. Wilson—that same Wilson whose paper on the geology of western Queensland had been communicated to a meeting of the society by Coxen (see Chapter 7). In 1868 the collections were moved down to Queen Street—to the Parliamentary building. In its annual report for 1899 the museum board of trustees was to comment that there were mainly 'crabs and other marine invertebrates'[2] that were transferred from the Windmill to the Parliamentary building but there is no other evidence that this was so. After the move a collection of about 70 birds from Cape York was purchased from Messrs Cockerell and Thorpe, and Coxen was to mount them. Another collection of 122 birds was given by Cockerell in 1870 and the society spent £10 on glass doors for the ornithological shelves. Richard Daintree, government geologist for north Queensland, gave four sets of stereoscopic photographs of the Gilbert River[1].

There were also the government's mineralogical collections that Daintree had entrusted to the society until a government museum was founded. However, these mineralogical collections 'being in boxes and not set out on open shelves.....cannot be said to be really open to the public'[3]. More space was made available in the Parliamentary building in 1871 and C. D'Oyly H. Aplin, the former government geologist for south Queensland, arranged and catalogued Daintree's specimens with his own

*Previous page*: A school class examines a display of jellyfish (by courtesy the *Courier Mail*).

collection for the geological museum that the government was setting up[3,4]. On 24 June 1871 the secretary for Public Works inserted a notice in the *Government Gazette*:

> The Government having arranged for the exhibition of Mineral Specimens etc. etc., contributions from persons interested in the formation of the Museum proposed to be initiated will be thankfully received by this Department. Cost of transit of specimens by steamer will be paid[5].

However, the government's geological museum lasted barely two months. Aplin finished arranging the minerals in the first week of September[3]; and soon after, the government at last assumed responsibility for the Philosophical Society's collections as well as its own mineral specimens by appointing Coxen the honorary curator of a public museum[1] (see Chapter 3). From the notice that appears in the *Government Gazette* on 7 October 1871, signed by Coxen as acting curator, it is clear that he was the honorary curator of a comprehensive museum and not one confined to mineralogy[5].

In the notice in the *Government Gazette* in 1873, announcing Karl Staiger's appointment as government analyst and museum custodian, the government solicited—

> contributions of animals, birds, minerals, shells etc. to enlarge the present collection at the temporary museum..... (and) when forwarded from distant places.....cost of transit will be defrayed by the government[6].

There could not have been much room in the two small rooms in the Parliamentary building. Staiger reported that one room contained the minerals that D'Oyly Aplin had arranged and the zoology collection was in the other. Most of the Philosophical Society's collection must have been packed up—pending the availability of a new building—because Staiger describes the zoological collection as comprising:

> a skull of a dugong, an imperfect skeleton of a black whale, some snakes, fishes, an octopus and a small collection of insects and shells, none of which I found named[7]

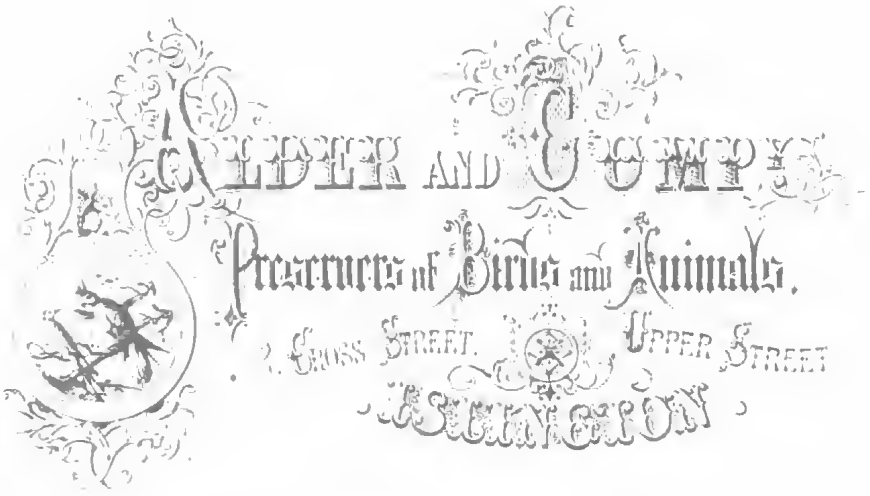
He set up a display of minerals to satisfy enquiries in the new accommodation he had obtained in the Post Office building. Meanwhile Daintree had been writing long letters from London—where he was now Queensland's agent general—advising Staiger how to set up a display of soils from different parts of Queensland:

> as.....I take a never ceasing personal interest in this matter I will take the opportunity of sketching the outline of a mode of arrangement of the Museum..... Divide your building into sections, each section to represent a geological epoch.....[8].

Staiger believed he could do what Daintree suggested if he had the long room in the Post Office building for mineralogical display, leaving the two rooms in the Parliamentary bulding for the zoology[9]. However, by 9 May 1874, when *The Queenslander* published a glowing account of the displays, they were all in a large, 'nicely painted' room in the Post Office building—

> well lighted, and (with) show cases arranged down the centre and along the aisles. In the cases are classified specimens of tin, copper, iron, gold, coal, marble.....as obtained in the colony and.....in many cases.....from other countries—an admirable arrangement when comparison is the object a visitor has in view. Other cases contain insects; there are bottles with fishes.....; reptiles and other things much more agreeable in the preserved than in the living state.....

Anthony Alder, taxidermist at the museum from 1907 to 1915, with his wife.




A tradition of taxidermy came to the new colony, Queensland, from Great Britain. Alder had trained in his uncle's firm in London.

> The walls are decorated with views of colonial life and animals that were, by repute, extinct before Australia was discovered. Mr Staiger, who is arranging the collection, is afraid, and with good reason, that the space at his disposal will be occupied before the novelties and valuables sent in..... have all got a place.

The trustees acquired more space in the Post Office building in 1876 and 1877, but it was still very crowded, and the standard of display could not have been high. Nevertheless, Staiger entered displays on behalf of the museum in the Agricultural Society of New South Wales show of 1877 and was awarded bronze medals for Queensland photographs (Daintree's) and for Queensland minerals[10]. In the same year taxidermist Anthony Alder offered his services to collect and mount zoological specimens. Although they purchased material from him occasionally, the trustees were not able to engage him at that stage[11].

By this time the museum holdings included 'Curios, Machinery, Weapons and Furniture'[12]—it was a museum of general sciences and history as well as anthropology, mineralogy and natural history. Live specimens were also on display. A series of articles in the *Courier* in 1926 elicited reminiscences of the museum in Queen Street from readers[13]. Miss Pauline Seal recalled childrens' hour, 4.00 to 5.00 pm daily, when Mr Dignan fed mice to his carpet snakes. The museum was obviously interested in attracting children, and it created a lasting impression on them, though possibly not the one intended. Apparently the trustees also assumed some responsibility for the living lungfish, probably in the Botanical Gardens. In the board minutes of 20 August 1876 their concern that 'the ducks in the pond.....(were) damaging to the..... propagation of the *Ceratodus* and studying its habits' is recorded.

The displays in the new building in William Street were described in an article in the *Queenslander* published on 13 March 1880 just two days before it opened to the public:

> the collections which so crowded the old building in Queen-street are as yet very insufficient to the aim of their present habitation. There are a few new additions to the collections, one the most noticeable of which is the skeleton of a python, beautifully articulated and coiled in spiral curves, the length of the reptile being about 18 ft. The upper floor has been devoted to birds, butterflies, shells, and reptiles, and there are two cases containing beautiful specimens of coral..... The cases of lepidoptera have been supplemented with valuable additions from Singapore, some of the moths and butterflies

being most gorgeous. On this floor a case of echinoderms are chiefly new. On the ground floor are the mammals, minerals, ethnological and technological specimens, and the walls are hung round with the Daintree colored photographs. The collection of mammals is at present very insignificant, though there are a goodly number of skins awaiting the labors of the taxidermist..... Mr Haswell believes in what we might term the pictorial style of arranging zoological specimens, which is certainly more attractive to the ordinary visitor than endless rows of catalogued birds and beasts. A large case is to be devoted to climbing marsupials, in which rock and tree will allow these creatures to be shown in life-like attitudes, while from the still pool in the corner the platypus steals up to sun himself on the rocky margin. We saw one of the platypi pinned out in the shape in which it is intended he shall bask in the future, and another coiled up asleep. The same pictorial design will also be carried out with a large number of the birds that are yet unmounted. The cases brought by Mr Bernays from New Zealand have been opened, and amongst other things contained various bones of the gigantic extinct birds of that country. It is intended that the gallery above the upper floor shall contain a botanical collection of which Mr Bailey is at present engaged in making the commencement. The cases at present set out contain a collection of fungi and of fruits. The walls are to be hung with illustrations of various vegetable diseases. To those who visit a museum more for instruction than amusement the minerals will probably be the chief object of interest. These have been carefully arranged, and are a very valuable collection. The fishes, which were a very attractive feature in the old exhibition, have at present to remain stored away in obscurity, as the vessels in which they were displayed are of a faulty construction and will not hold the glycerine without leaking..... The hammer-headed shark purchased some time ago, and which, though a splendid specimen, appeared to have been irretrievably ruined by weeks of exposure to sun and rain in the exhibition grounds at Bowen Park, has been most skilfully restored by the museum taxidermist, and will now be a most striking object. The largest specimen of this creature possessed by the British Museum is less than 5 ft in length, whereas this one is about 12 ft long.

Edward Spalding, the museum's first staff taxidermist, was appointed in 1880[14]. He was to stay at the Queensland Museum for 13 years. The museum board's report of 1885 records that in that year alone he mounted 44 mammals, 81 birds, 9 reptiles and 11 fish as well as preparing skins and skeletons. In 1886 and 1887 he mounted many specimens of marsupials that had been collected by Kendall Broadbent—the museum's zoology collector. These included specimens collected at Cape York, Herbert River, Cardwell and Rockhampton (see Chapter 3).

As well as material collected by the staff, there were purchases, exchanges and public contributions and, in 1884, only four years after the museum had moved to its new building Sir A.H. Palmer, chairman of the board, wrote:

.....Indeed the evils of overcrowding which last year were in a measure prospective are now being realized to the defeat of the prime object of the institution as an educational agent— the conveyance of instruction by means of objects systematically displayed..... On the same floor between the fossils and minerals and therefore quite out of accord with its surroundings is the anthropological collection. This fine series of objects from Australia, New Guinea, the South Sea Islands and New Zealand obviously suffers for want of room for proper display. The minerals have for the present scope enough but it is at the expense of public convenience. The cases occupied by them are..... too closely arranged to allow free circulation of visitors in holiday throngs[15].

The floor above was the zoology gallery but it was also short of space. Palmer says of it:

> .....To economise room a double line of tall cases has been of necessity placed in the middle of the floor with the unavoidable result of depriving observers of a favourable light for examining a part of their contents—the Australian Birds[15].

The upper mezzanine gallery exhibited molluscs, anatomical specimens and botany:

> One end of this gallery being filled by the Herbarium, the cases in which utilitarian botany can find place are but few in number and it is much to be regretted that the department of instruction is thereby seriously retarded[15].

Problems abounded but, as Staiger had done, the museum displayed exhibits at interstate and international exhibitions. The trustees of the Queensland Museum were awarded a gold medal at the Melbourne Centennial International Exhibition in 1888[16].

The museum moved to the National Association building in Gregory Terrace in 1900. It opened to the public on 1 January 1901—Federation Day. Displays apparently left a good deal to be desired. In a report of 26 January 1901, A. Norton, chairman of the board, wrote that—

> .....failure of the contractor for new cases to finish his work in time compelled me to have numerous cases fastened down with wire in default of locks.... On the ground floor are shown Queensland products exclusively, the galleries are devoted to illustrations of various branches of science and skill. The reservation of a distinct portion of the building for the display of home produce should in my judgement be made a special feature in every provincial museum and I am glad to find that it seems to have met with approval here....Our fish fauna especially demands vastly more than can be afforded to it as yet and our industrial materials are not represented as such in any way.... With regard to the gallery I regret to find my apprehension of its insufficiency more than justified. Though most of its cases have been crowded with exhibits to a degree which precludes anything like proper arrangement and descriptive labelling there remains a large surplusage of material which cannot be utilized. In fact our ethnological collections alone would, if exhibited as they should be, fill the entire gallery and considering our geographical and other relations with New Guinea and the neighbouring oceanic islands we ought not merely to have but to exhibit a far richer series of objects of interest from these sources than most other museums.

Norton went on to say that the display of samples of food and adulterations had excited interest and that the natural history exhibit which featured foreign animals was only partly displayed 'and was cooped up in a few cases in the gallery'[17]. The advisability of opening the displays to the public in the evenings was considered but because of the need for 'the installation of electric light' the trustees decided not to ask the Government to incur this expense.

There is no doubt that the Gregory Terrace building gave space for expansion of the exhibits. But Director de Vis and his small staff clearly had neither time nor resources to improve the displays which were still at a comparatively low level in 1910 when Robert Etheridge of the Australian Museum reported that 'the Queensland Museum leaves on my mind a feeling of gloom, absence of taste and disjointed elements'. He also said that 'the present (display) cases are cumbersome and out of date' and that there was a need for 'a more modern form of natural decoration in some of

the mammal and bird groups' because 'much of this is incorrect and not up to present day taxidermal science'[18].

Great progress was made with the exhibition of specimens and objects following the appointment of Hamlyn-Harris to the directorship in 1910. Alder had finally become taxidermist in 1907. In 1912 Thomas C. Marshall began as cadet and in 1913 Michael J. Colclough was appointed as assistant taxidermist. Alder was a considerable asset to Hamlyn-Harris as he had trained in England and was an expert in wax and plaster casting as well as taxidermy and painting. He had supplied museums in England and on the Continent with specimens, had exhibited at international exhibitions and had won two gold medals for his casting work[19].

The Aboriginal Camp-Site diorama. Opened in January 1914, it was on display until the museum closed to the public in November 1985. The display was created by Anthony Alder under Hamlyn-Harris' direction.

The Investigator Tree, incised during the beaching of Matthew Flinders' ship. Later, *Beagle 1841* was added to the inscription. The log came to the museum in 1889 from the Port Office.

## Dioramas for Queensland

During the next few years Hamlyn-Harris organised several important displays including the *Australian Aboriginal Life* diorama. This display—to visitors from 1913 to 1985. At the time of its opening *The* except for a few months in 1955 when it was hidden by a temporary display—to visitors from 1914 to 1985. At the time of its opening *The Queenslander* enthusiastically reported it to be—

> The largest and in many respects the most interesting of the new displays,.....a comprehensive illustration of a typical aboriginal scene. Three adult figures and a picanniny are shown. A man is squatting in front of a gunyah, husking and preparing Mitchell grass for the milling stone, which may be seen close by. A Dingo is sniffing at a dead wallaby, which has been deposited near the stone[20].

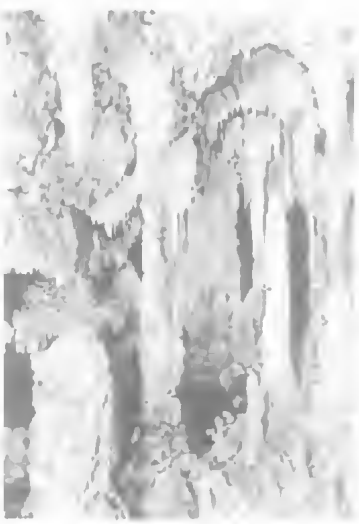
Another report at that time stated of this display:

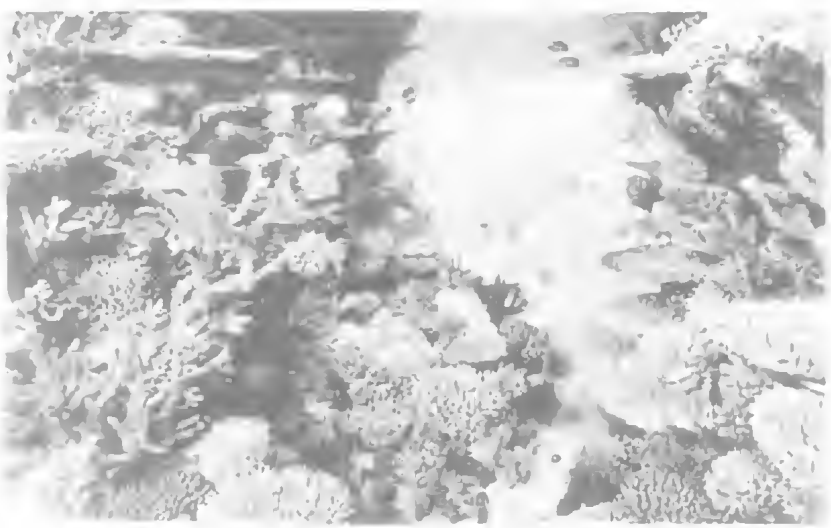
> The whole is crowned by a talented scenic background of native flora and natural bush features, generally from the brush of Mr A. Alder, taxidermist. Both the idea and the execution merit unstinted recognition. Prominent in the exhibit is to be seen the *Investigator Tree*, round which massive logs cling so much of the history and romance of Australian exploration[21].

The *Investigator Tree*, donated by the Port Office in 1889, is, in fact, only one log—the 3 metre long portion of the trunk from Sweer's Island, Gulf of Carpentaria. It was incised during the beaching of Captain Matthew Flinders' ship, the *Investigator*, in 1802; and a later incision, *Beagle 1841*, was added by one of the members of Charles Darwin's historic and scientifically important zoological and botanical expedition. As well as those inscriptions there are Chinese characters and other indistinct engravings. This diorama had its name changed to *The Aboriginal Camp Site* when it was refurbished in the mid 1960s. The dingo and pups were replaced with newly-mounted specimens and the *Investigator Tree*, removed to became a key exhibit in an historical display entitled *Discovering the Way*, was replaced with a similar-sized burnt log.

Hamlyn-Harris and his staff produced several room-sized group displays of Australian and particularly Queensland mammals and birds. Adjoining each other on the side of the main hall opposite the Aboriginal diorama there were four semi-diorama animal groups that had large painted backgrounds and side panels made of canvas stretched to wooden

Dioramas created by Marshall in the 1920s. *Below*: the Limestone Cave, constructed in 1925 under Longman's direction; *below right*: The Coral Pool, constructed in 1928, and dismantled in 1955 to make way for another display.





frames. Alder, assisted by Colclough, painted the scenic panels with oil colours thinly applied. These groups featured, separately, kangaroos and wallabies, possums, wombats and carnivorous marsupials including a Tasmanian tiger, and a group of emus with chicks. Irish peat, imported in blocks about the size of bricks, was used in all these early dioramas in the construction of rock and ground forms. The earth surrounds consisted of peat fragments, and peat dust was always a problem as the dust lodged on the painted Aboriginal casts and on the specimens and accessories.

At this time Henry Hacker, the capable entomologist appointed in 1911, began to make an excellent series of insect life-histories. His insect displays included beautiful photomicrographs carefully arranged in table cases.

Possums and tree-climbing marsupials – one of a group of dioramas prepared by Alder under Hamlyn-Harris' direction (photograph from the *Queenslander* 31 January 1914).

It was the developing talent of Thomas C. Marshall, who had trained with Alder and Colclough and later studied art under the gifted artist, potter and woodcarver L.J. Harvey at the Central Technology College, that paved the way for the advances in the displays between 1920 and 1940 — during H.A. Longman's tenure as director. Although Marshall was associated with Alder for only a few years he certainly was greatly influenced by him. In 1925, under Longman's direction, Marshall created the *Limestone Cave* diorama based on the Chillagoe Caves in north Queensland. Described by *The Queenslander* at that time as a 'Geological Fairyland', it was built in the top of a disused staircase. Some actual stalactites and stalagmites were used but most were created by modelling them in plaster, cement, expanded metal and powdered glass. Part of the success of this exhibit, has been the result of the element of mystery that its creator achieved. It was an open display and often, when the attendant's back was turned, children entered to discover its secrets. In consequence, the cave became run-down and was closed about 1950. In 1965, refurbished, with two false vampire bats mounted and set-up on the 'limestone walls', concealed fluorescent lighting installed, and glazed with

The ground floor display gallery in the Exhibition building in the 1930s.

sloping glass to avoid reflections it was, again, a success. Recently, two small boys stood in front of the display and one, bending over and peering in, called to the other 'Betcha don't know where this cave ends?'. 'I do—comes out at Jenolan Caves at Sydney' was the reply.

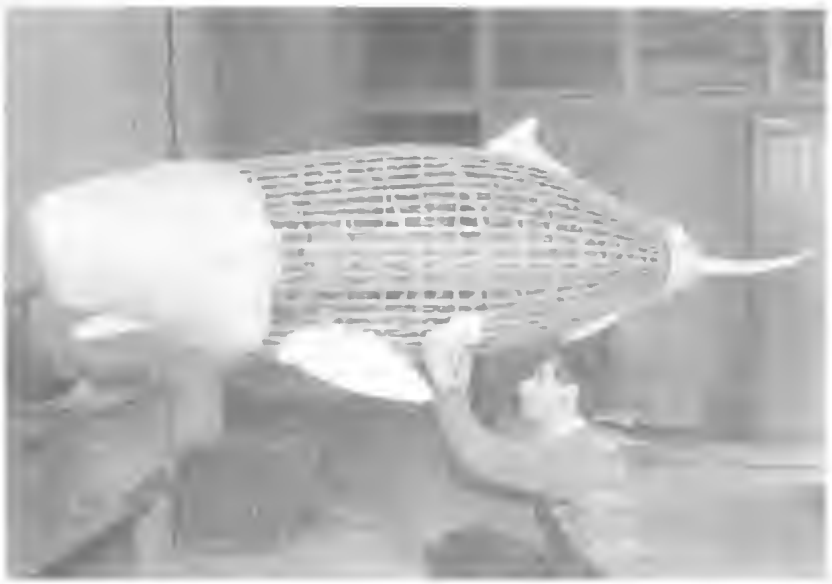
The *Coral Pool* diorama, created in 1928, was Marshall's next success. It was built at the western end of the main hall and featured ridges of 24 species of coral, a giant clam with the shell valves open showing the purple body and colourful painted casts of fish, sea-fans, starfish, sea-urchins and other marine forms. Sadly, it was dismantled in 1955 to make space for another display. Marshall made models of whales, casts of fossil bones and a very fine series of fish casts which he painted himself. Longman, with Marshall's assistance, was the first to exhibit some of the fossil bones of the Durham Downs dinosaur *Rhoetosaurus brownei*, together with a plaster cast skull of the great carnivorous dinosaur *Tyrannosaurus rex* and an oil painting by Douglas Dundas which illustrated the huge extinct reptiles in their environment. Jack Woods, when geologist under Director Mack, reconstructed and improved the display in the 1950s and later the dinosaur footprint from the ceiling of the Rhondda Colliery at Dinmore was added by Bartholomai.

In the late 1930s Marshall made two of the earlier films featuring the marine animals of the Great Barrier Reef, and he was one of the official photographers during the visit to Queensland in 1954 by Queen Elizabeth and the Duke of Edinburgh. There is no question that he was the key man in the better displays of the Longman period. In 1939 he was awarded a Carnegie scholarship to study abroad but was unable to take it up because of the outbreak of World War II[22]. He was transferred to the Department of Harbours and Marine in 1942 and in 1943 became ichthyologist in that department[23]. He maintained his contact with the museum and was a regular visitor.

Ivor Filmer assisted in the maintenance of displays from 1944 to 1952. His keen interest in natural history persisted after he left the museum and he continued to send in road-killed and storm-washed specimens. While in charge of the Australian Inland Mission Hospital at Birdsville during the period 1957–1959 he collected more than 200 vertebrates, including rare and valuable mammal and bird specimens, some of which were mounted for display. He usually air-freighted the specimens from Birdsville to

Brisbane and on one occasion he sent a live python, with two rats in the container to serve as food. However, when museum staff opened the box they found that instead of the python having eaten the rats, the latter had nibbled the python.

Meanwhile, other important items that added to the diversity of the displays and attracted a new audience to the museum had been acquired. In the morning of 22 August 1919 *Mephisto*—today the last surviving World War I German Tank A7V Kampfwagen—was hauled into the museum grounds by two Brisbane City Council steamrollers. It had been recovered, disabled, in France by the largely Queensland 26th Batallion AIF with the assistance of the members of a British tank corps, who towed it out of no-mans-land and protected it from subsequent, largely Australian, souvenir hunters[24]. The 30 ton tank, consigned to the Australian War Memorial, was diverted to Brisbane as a result of the representations of Queenslanders and state officials, including the governor, whose aide-de-camp was, at the time, Lt. Col. J.A. Robinson,



T.C. Marshall modelling the Pygmy Sperm Whale that came ashore at Sandgate in 1933. Marshall is working in the basement area of the museum that later became the staff tea room.

commanding officer of the 26th Batallion at the time of its recovery. About 1950 *Mephisto* was cleaned and coated with boiled linseed oil to preserve it. In 1971 it was repainted by contract painters Smalley (James) Industrial Coatings and the history and technology section of the museum added further details in 1974.

Another large technological exhibit was put on permanent display in 1929—the AVRO *Avian Cirrus*, aircraft G-EBOV, flown solo from England to Australia by Squadron Leader H.J.L. (Bert) Hinkler (see Chapter 11). This single-engined aircraft, that made pioneering aeronautical history, has been a magnet for visitors, drawing people from far and wide.

Longman organised the purchase of several large mammals from the London firm of Rowland Ward. The first, a magnificent female gorilla, arrived in 1927, and others followed—tiger, orang-utang, jaguar, cheetah and a male lion. The Queensland public were thus able to see mammals that could not be seen locally, as there was no zoological garden in Brisbane, and the purchase added a new dimension to the mammal displays. These excellent specimens were also examples of first class taxidermy—the first in the museum to have been prepared by the

Donald P. Vernon, in 1946 soon after he came from the National Museum of Victoria. He remained on the staff of the Queensland Museum until his retirement, as ornithologist, in 1981.

manikin method or sculpture-taxidermy. In this process the hollow artificial bodies were made of plaster reinforced with strips of hessian immersed in liquid plaster. The skin was then attached to the hollow cast. This was a tremendous improvement over the old 'stuffing' method that had been practised in museums for a very long time and which involved filling the sewn-up skin with one of the various plant fibres such as straw, hay or sawdust for bodies, and strips of reed or cane for legs. Much of this material was inserted by 'stuffing irons'—lengths of steel rod flattened and bent on one end and with a handle on the other. Several of these, of various lengths up to one metre, used to hang on the wall of the workshop. They were not used after 1946, for museum preparators soon were making excellent manikins under the tutorship of Donald P. Vernon, who had come from the National Museum of Victoria soon after Longman retired.

## Displays for Education

Towards the end of 1945 George Mack, formerly ornithologist at the National Museum of Victoria, Melbourne, was appointed scientific assistant to Longman and succeeded him as director early the following year. Vernon, experienced in sculpture-taxidermy, casting and diorama construction was appointed as preparator in 1946. Like Marshall he had formal training in art and also in sculpture at the Melbourne Technical College under George Allen. In 1947 Malcolm E. McAnna was also appointed a preparator. He had been on the staff of the South Australian Museum, Adelaide, for many years and was an expert technician. The standard of displays that this team inherited varied from the excellent work of Marshall to many poorly displayed and out-of-date exhibits. Apart from the special attractions—Hinkler's aeroplane, the World War I tank *Mephisto*, the *Australian Aboriginal Life* diorama, there were also the Torres Strait mummies and the monstrosities case which always excited comment. The latter attracted viewers because of the bizzare mounted head and neck of a two-headed calf, a boar's skull with an overgrown tusk which circled back and pierced its skull, other aberrant skulls, hairballs from ungulates, a pair of scissors embedded in a tree trunk and other miscellaneous objects. Mack said 'The Museum is not a curiosity shop' and they were quickly removed, as were the many odd signs at the front entrance to the museum, one of which read 'Eating Peanuts Not Allowed'. The large eel on display required a new label to replace one that read 'World Record Eel'—Mack was 'against sensational labelling'[25]. He was keen on educating students in science especially zoology and geology and at that stage very few secondary schools taught those subjects. He did not like dioramas and habitat groups, referring to them as 'just peep shows', and he wanted to present accurate, scientific information in a formal way.

At that time the bird section had a very dated Edwardian appearance with hundreds of rather poorly mounted specimens set on artificial trees. Many, such as the ducks and geese, were badly faded and had to be destroyed. Similarly faded, and in very poor condition were the mounted monotremes and marsupials, which had suffered serious insect damage. It was really only the layer of thick dust on their pelts that kept the specimens' fur intact. In consequence, most of these were destroyed and their entry in the register is all that remains. Sadly, until Mack initiated it, mounted specimens on exhibition were not provided with identification tags tied to the specimens. However even had they been labelled it would have been impossible to rescue the specimens that were lost at this time.

Nor were conditions in the galleries themselves ideal. In the year of

Longman's retirement there was excitement and consternation, when at short notice, on 11 June 1945, the Duke of Gloucester decided to visit the museum, and on that very day the director was away sick. The duke arrived, dressed in military uniform with the duchess by his side. They were accompanied by the governor of Queensland, Sir Leslie Wilson, and his aide. The welcoming party, comprising J. Edgar Young, an honorary, Head Attendant Michael P. Beirne, and Ivor G. Filmer the young assistant on the scientific side, guided the royal couple and the governor around the galleries. The duke then signed an historic bible, donated by J. Wilkinson, the first member for Moreton in the federal parliament. It was the same bible signed by his father King George V when, as Duke of York, he opened the first federal parliament in 1901. According to Filmer, it was a dull overcast day and matches had to be lit occasionally to show the duke a specimen or to light up a label. Looking back one wonders just what the duke thought about a state museum where matches had to be used for illumination of specimens and labelling. The museum galleries were lit with electricity for the first time in their history only in August 1948, after George Mack became director[25].

A worse problem was the rain water in the gallery during summer storms. It came through the roof, from perforations in the mortar and from around the windows and of course it ran down the interior walls. It was quite a common sight at such times to see distraught attendants heaving tarpaulins over table cases and placing buckets here and there to catch water from the main leaks or spurts. During one storm in 1947 water poured down the walls, behind the Ellis Rowan watercolour paintings of Australian wildflowers. This fine series on Australian flora, that had been purchased by the Queensland government in 1912, was moved quickly to safe storage. Since that time some of the paintings have been displayed several times but only for short periods. Mack, with the cooperation of the Department of Public Works made a determined effort to make the building as weatherproof as possible and in due course the external mortar was repointed. He was adamant though, that the museum needed a new 'home' and he said so on every possible occasion. His idea was to 'keep the old ship afloat' until a new museum could be built.

Malcolm McAnna, preparator 1947–71

Then there were the wooden floors throughout the exhibition galleries. The cleaning of the floors was a ritual that was religiously carried out every Monday morning and it was not without a touch of humour. It was usual then to see a row of at least four women, down on their hands and knees and elbow to elbow, scrubbing away in a kind of leisured unison. There they were—heads down, bottoms up with their dresses tucked into the legs of their bloomers and woe betide any assistant who walked on their wet floor or who was audacious enough to want to open a table case. Of course, the galleries were closed every Monday for cleaning. However, visitors could still gain access by signing the visitors book in the office. This was not something that Mack could change, and it was not until 1970 that the floors and stairways were sanded and floor tiles laid.

From 1948 Jack T. Woods, who had been appointed as a scientific assistant and later geologist, began the improvement of the displays in the eastern end of the gallery. Under Mack's direction he organised new wall cases on *The Pleistocene Period* and *Introducing Earth History*. Woods continued with the redevelopment of the Durham Downs dinosaur display first exhibited by Longman. Also under glass in a new case was the cast of the skeleton of the giant fossil marsupial. The extraordinary fossil skull of

The museum's dinosaur display in the 1960s. Longman's original exhibit had been progressively improved by Mack, Woods and Bartholomai. A model of the giant carnivorous *Tyrannosaurus rex* is to the left of a display of the bones of Queensland's *Rhoetosaurus brownei* and the footprints from the ceiling of the Rhondda Colliery.

McAnna (*left*) and Vernon, colleagues from 1947.

Cecily Sandercock, first artist in the museum, reconstructs a diprotodon from the cast of the fossil.

the cheek-pouched marsupial *Euryzygoma*, which Longman had described, was the main exhibit in another new case.

Vernon and McAnna mounted mammals and birds and cast many reptiles and amphibians. At first they also refurbished the old display cases and then, gradually, year by year, new cases were made by the Department of Public Works at the Ipswich Road workshops. In the next few years, several new or remodelled wall and island cases were prepared—two showing Aboriginal boomerangs and shields, three on the Great Barrier Reef, two on monotremes and marsupials and one each on human evolution and human physiology. Invertebrates of certain species were displayed in preservative fluid inside smart perspex containers that were made in the museum workshop. The art work in the early 1950's was executed by Cecily Sandercock who made a solid contribution to the displays. She was the first artist appointed to the staff.

Mack wrote of these displays in the international journal *Museum:* 'The purpose was to produce an attractive, tasteful and dignified display, one that would catch the eye and hold the attention of the visitor'[26]. He had a text book attitude to display content and was hard to convince on the use of colour and imaginative design, but he certainly was keen to aid students of all ages. In the same article he wrote '... visitors remark upon what they learn from the bright, well lit, methodically arranged exhibits. Classes of school children and other well organised public bodies can readily follow talks given in front of these cases'. For several years Mack and Shirley B. Gunn lectured in the front section of the main hall where the Great Barrier Reef cases, lit with fluorescent lighting, were arranged in an arc.

A valuable contribution to displays in the museum was made by McAnna, especially between 1950 and 1970. He was skilled at moulding and casting, and introduced the use of latex for moulds and casts of reptiles, fish and other animals. When very fine detail was required on small soft bodied specimens, such as frogs and toads, he used a flexible agar mould to ensure sharp and fine details in the cast. He experimented with the use of polyester resins strengthened by fibre glass and with this method he achieved first class results with his casts of sharks, rays and fish. The three metre high Sunfish that he cast in 1970 was his last.His

untimely death the next year, while rescuing his three nieces from the surf at Noosa, was a sad loss to the museum.

In an effort to obtain vertebrate specimens both for the study collection and for display, Mack organised field work that was undertaken by several of the staff following a period of inactivity due to decline in staff during World War II. The museum obtained its first vehicle in about 1950—a 14 h.p. Commer truck. It was used for the collection of specimens. The taxidermy at that stage was done by Vernon and Kent Keith, and in 1960 Terence P. Tebble replaced the latter. An extensive series of reptile casts made by McAnna was painted in oil-colours by several staff artists - especially Valerie Smeed from 1950 to 1956 and Rhyl Jones from 1958 to 1962. They later became well known artists as Valerie Waring, a watercolourist and Rhyl Hinwood, a sculptor celebrated for her grotesque heads in Helidon sandstone in the Great Court of the University of Queensland.

Although he was seven years too early, Mack organised a special exhibition on the Centenary of the Queensland Museum in 1955[27]. Two

Temporary wildflower display, mid-1960s. *Above*: the display set up at the end of the ground floor gallery, *below* : visitors examine the exhibits.

Reptile models were made by McAnna (*above*) and painted by museum artists, including Lynette Evans (*below*) in the 1950s.

wall cases traced the history of the institution with photographs of directors, curators and collectors, art work and specimens — including anthropological objects from the MacGregor collection and birds collected by Broadbent. One section was used to show the extent of the museum's activities at that time - collecting, mounting, casting, photography and some aspects of the education programme. This exhibition was followed, in 1959, by a much larger display on the *Centenary of Queensland 1859-1959* that consisted of 23 pastel coloured wall panels, two wall cases and other table cases which exhibited historical items and objects, many of which were loaned by the Royal Historical Society of Queensland from their Newstead House collection. The panels featured *Queensland Explorers*, *First Settlement 1820*, *Permanent Settlement 1840*, *Queensland a Colony 1859*, *Early Housing*, and *Transport and Mining*. There was also a panel of large framed historical photographs taken by Richard Daintree in the 1860s and coloured in London. The wall cases exhibited historical treasures such as explorer A.C. Gregory's compass; explorer Edmund Kennedy's sextant; the sundial from the homestead of Queensland's first permanent settler,

Patrick Leslie; a box attributed to explorer Ludwig Leichhardt; the model of the Pile Light and many other relics. Mack wrote a well illustrated booklet entitled *Centenary of Queensland Historical Exhibition* which was popular with school children[28]. One of the central exhibits of the display was the large oil painting of Brisbane by Joseph A. Clarke which was painted in 1880 from the high bank of the Brisbane River at Bowen Park, New Farm. The painting was deposited in the museum by the Queensland government in 1882. It had probably been prominent on the wall of the William Street building and in 1946 it hung on the wall beneath the stained glass window on the western end of the main hall. Later, in 1968, it was displayed in the gallery. Unfortunately, this historically important painting had been prodded by visitors' umbrellas—no doubt while pointing to some familiar feature—and in addition there was some paint flaking. In quite recent times it was restored, a new frame made in the museum workshop, and it now hangs in the cabinet room of the Executive Building in George Street, Brisbane. It cannot be regarded as a masterpiece but it is a fine painting of Brisbane as it was 20 years before the turn of the century. Clarke was a resident of Brisbane in the 1870s and from 1881 he was the first teacher of freehand drawing at the old Brisbane School of the Arts[29].

Daintree's coloured photographs have also been displayed on many occasions. In 1877 they were loaned to the Sydney exhibition, along with some mineral specimens (see Chapter 14) and they were proudly displayed by the museum in its William Street building as well as in the Gregory Terrace building early in the 20th century. They were the subject of a special temporary display in 1977 and have been published by the museum as a record of the early pioneers of Queensland[30]. Daintree had arranged for the over-painting of these photographs—many taken by himself and some later ones of the Gympie and Darling Downs areas by Heinrich Muller—to be done in London when he was agent-general for Queensland. It is not known how many sets there were but there appear to have been at least three and probably more. There was one in the agent-general's office and another, from the 1871 Colonial Exhibition in London, remained in South Kensington for a while. The museum appears to have had one set early in the 1870s. There was a set shown in successive exhibitions in Paris, Vienna and Philadelphia. Apart from their historical value as pictorial records of Queensland in the 1860s the over-painted


Don Vernon preparing a specimen of an Australian Bustard *Enpodotis australis* at his camp near Springsure, September 1965.

Stanley Breeden, museum photographer 1957–65.

Daintree photographs are an interesting and curious example of a technique that flourished briefly at a time when photography was seen as a mere adjunct to painting. They were often embellished with details that were not in the original photograph—for instance an Aborigine or a kangaroo is sometimes added. Indeed, because of the coloured and obviously painted surface of the photographs they were long believed to be paintings.

Many of the enlargements of other photographs exhibited in Mack's *Centenary of Queensland* exhibition were prepared by Stanley Breeden. He was appointed in 1957, succeeding R.V. Oldham. He developed expertise in natural history, ciné and still photography and he took part in field trips photographing wild fauna and collecting specimens. Over a period of eight years he built up the photographic section and this became invaluable both in research and for display in the museum. Breeden's later photographic work achieved an international reputation.

## Influences from Abroad

Following Mack's death in 1963 rapid progress was made by Jack T. Woods. Possibly as a result of an overseas study tour of museums soon after his appointment he brought a deal of enthusiasm to his job as director that infected the whole staff. He favoured development of historical and technological displays as well as the geological displays that to some extent had been neglected under Mack. Further, he permitted a certain flair in design and a better use of colour and arrangement than had hitherto been approved; and he sought displays that combined the information and educational emphasis that Mack favoured with the visual impact that could be achieved with modern design, materials and lighting. From 1966, with the appointment of artificer W.J. Balaam, display furniture was made in the museum, its design now part of that of the overall display. It certainly was an improvement on the standard cabinets which, up to that time had been supplied by the Department of Works from the Ipswich Road workshops.

By this time there were additions to the staff and the new appointees became involved with the display design, usually under Wood's direction.

To a greater extent than was evident previously these new displays reflected the new trend to use objects to communicate information on whole subjects rather than information on the object *per se*. John C. Hodge, the first education officer on the staff produced a display on the evolution of man. Bruce M. Campbell, newly appointed curator of zoology, planned the 14 metre long *Sharks and Rays* open display, with a new mollusc display built into the back of it, and an innovative skeleton gallery, that included two fine models by Tebble—one a human knee joint which the viewer could operate. Bartholomai, now curator of geology, organised *Oil and Gas in Queensland*, reorganised the minerals in a series of table and upright cases of new design, and used mineral and gemstone samples to demonstrate igneous, sedimentary and metamorphic rocks. Woods, with Vernon's assistance, also organised displays on a wide range of subjects—*Discovering the Way, Myths and Customs of Torres Strait, From Flame to Fluorescent* and *Focus on Progress*.

H.A. Sweetser, who had been appointed to the technology section of the museum in 1966, began collecting and restoring machines, wagons and a variety of technological items. Some old exhibits such as the model of an early stockyard, a draw-card with children over the years, was refurbished


Innovative new displays were a feature of the mid-1960s. A Hammer-head shark, cast by McAnna—one of the early fibreglass models.

and returned to the main hall. One of the large technological exhibits he restored was the beam engine from Lars Anderson's Sawmill at Esk that had been built in England in 1866, and from 1973 it was displayed in the museum gardens.

Another historic aircraft was acquired that complemented the AVRO *Avian Cirrus* that had come to the museum in 1929. It was the AVRO *Baby*, flown by Bert Hinkler in 1920–1921[31]. As well as this tiny aeroplane, many Hinkler photographs and documents of great value—a dashboard clock, a pair of fur-lined gloves and other memorabilia—have been acquired and displayed through the determined efforts of E. Wixted, the museum's librarian and aviation historian (see Chapter 11). In a visitor survey carried out in 1977 by the museum it was found that Hinkler and his aircraft were among the most memorable of the museum displays[32].

Incorporated in the developing historical section of the gallery was Mary Beatrice Watson's water tank—a half-tank used for boiling down the bêche-de-mer that her husband fished. It was in this tank that she, a Chinese servant and her infant son, threatened by Aborigines, fled their stone cottage on Lizard Island north-east of Cooktown in 1881, only to die of thirst on one of the Howick group of islands[33]. The display with her


The restoration team led by Jack Kunze (*standing on truck tray*) deliver Bert Hinkler's AVRO *Baby* to the museum in 1972. Restoration was funded by the Royal Queensland Aero Club.

The Samford Bora Ground, a miniature diorama of the mid-1960s, the figures about 14cm high, designed by Eleanor Crosby and modelled and painted by volunteer artist Iris Nunley.

Immortalising Queensland's fauna. Margaret Oakden recording colours while David Joffe (*left*) assists Tebble in the preparation of the mould.

portrait and other exhibits told the graphic story of her last heroic days.

Another successful display of this period was *The Samford Bora Ground* based on an Aboriginal ceremonial area close to Brisbane. Both the background and the miniature Aboriginal figures 14 centimetres high were executed by volunteer artist Iris Nunley.

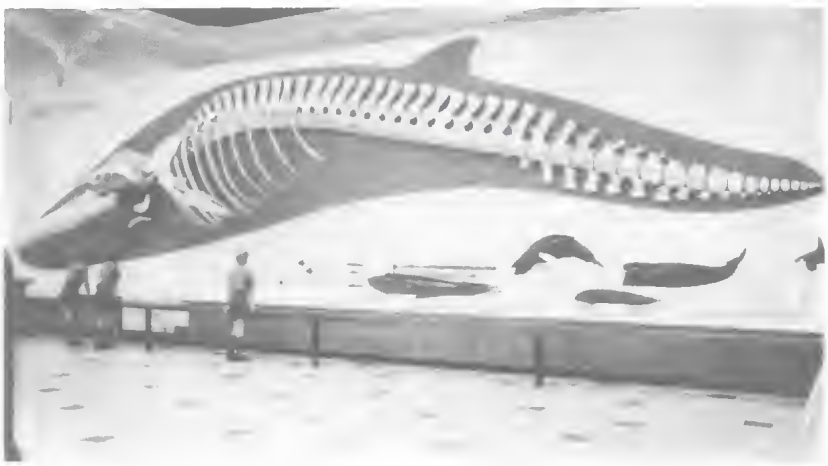
When Woods visited London in 1965 he agreed to have prepared a large mounted Red Kangaroo for display at Queensland House in the Strand. Shortly after, a giant old man kangaroo of this species was donated by the Lone Pine Sanctuary, Brisbane, and gave the museum preparators an opportunity to demonstrate their skills. During the 1950s and 1960s it was not possible in Brisbane to have local tanners tan skins to museum standards—especially difficult were the important parts such as the eyelids, nostrils, ears and lips. Instead, the skin was chrome-tanned, as were other large mammal specimens at that time, in a special 44 gallon (200 l) tanning drum. It was electrically driven and rotated slowly to keep the skins rolling, thus shortening the tanning process. This procedure was followed by the addition of sulphonated neatsfoot oil to the solution to soften the skins which were then dried, sandpapered, softened again with oil, and the hairside cleaned and blown dry. The resultant skins were strong and elastic, had perfect facial parts and digits and were suitable for attachment to the manikin or artificial body. The specimen was mounted by the manikin method of sculpture-taxidermy.

Present day large mammal mounting is sculpture-taxidermy. The cleaned skull, limb bones and pelvis are arranged on a steel armature and an exact clay or plasticene model is prepared with the musculature correct as it would have been in life. As the modelling progresses the skin is tried on and adjustments are made until life-like lines and the pose desired are obtained—a job requiring artistic ability. Plaster moulds are then made and casts of polyester resin reinforced with fibre-glass cloth are produced from the moulds. The casts are strong and durable yet thin and light. They are a considerable improvement over the earlier plaster manikins although they are hard to pin to, and pinning around the eyes and lips is essential in order to achieve good detail. To prevent drumming across concave areas, such as between muscles, pinning must be done when the skin is still moist[34].

From before the days of the Egyptian pharoahs, when taxidermy was a funerary art, plaster, clay and wax were the most commonly used materials for making moulds and casts. After World War II museum preparators were quick to take advantage of the new synthetic materials that were becoming available. In very recent years Senior Preparator Tebble and others of the preparatorial staff have been making moulds of the larger animals in polyester resin strengthened with fibre glass. These moulds are carefully prepared and the inside is treated with a release agent. A steel armature is set inside the mould, the mould halves bolted tightly together, and a two-pot mixture of polyurethane is mixed and poured into the mould. The foam expands to fill the mould, turning into a porous but fairly hard manikin that can be cut and worked on, but one that is also light and will take pins readily. Previously, both large and small bird bodies were modelled to the correct shape on a wire armature using sisal binding which was then covered with a layer of liquid celluloid, but now larger birds are also modelled in polyurethane. Many of the smaller birds as well as invertebrates are now freeze-dried without any other operation being done other than setting their positions.

Flexible moulding materials such as resins, silicones, latex rubber and

Vernon prepares a model of a Red Kangaroo, using techniques of sculpture taxidermy. The specimen was prepared for display at Queensland House, London. *Top*: the mannikin; *below*: fitting the skin.



The whale wall, set up in 1965.

alginates are also being used. Being flexible, piece-moulding is largely eliminated and intricate shapes can be reproduced in microscopic detail. The moulds are typically thin, light and robust—many can be rolled up—and they are easily transported. In Australia, Tebble was the first museum preparator to use latex reinforced with cotton stockingette to mould large objects—the Winton dinosaur trackways, the Texas caves, termite mounds and the rockface of columnar basalt at Merrivale in south-east Queensland.

In 1964 a plaster model of a pigmy sperm whale that Marshall had made some 30 years before was being recast in fibreglass for conservation. As the original model was broken up for disposal a piece of plywood fell out with a message, in Marshall's writing, carefully written on it. Marshall, now an old man, visited the museum for the annual Christmas party and was told that a message of his had been found. He immediately knew where it had been found and recited the message—'Longman is a B...'. Exasperated because of Longman's refusal to purchase 200 square feet of plywood for a case, he had placed the message in the time capsule. Some days later, he related, he was given the quick nod to purchase the same amount of material by simply and cunningly requesting a mere six sheets.

## A Modern Museum

The progress that was achieved under Woods continued with renewed vigour as his successor, Bartholomai, stimulated by an overseas study tour of museums in 1974—some five years after he had taken office—saw the need to improve the design section. From this time there were many new appointments to the staff in all sections of the museum. Between 1969 and 1980 new displays were developed at an unprecedented rate, old displays were restored and modernized and there were temporary displays on a wide range of subjects—some being developed in the museum and some arriving as travelling exhibitions.

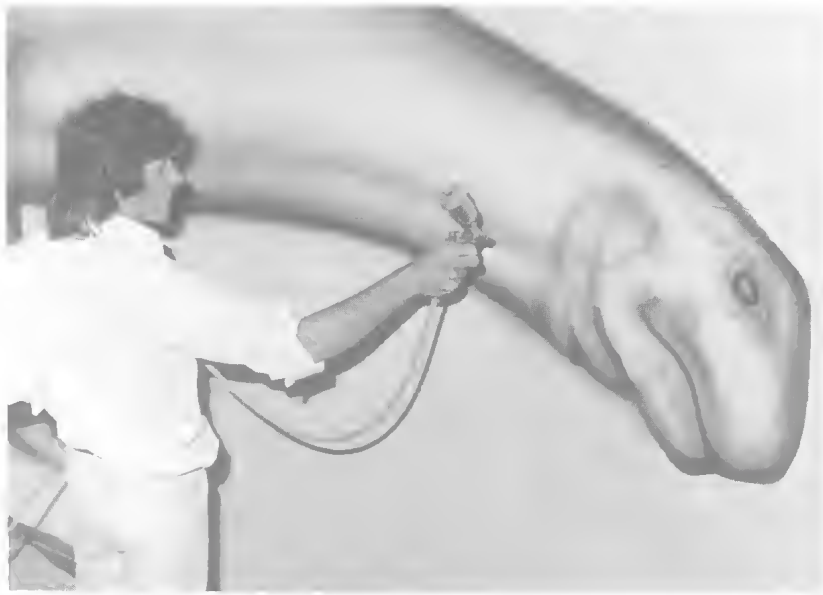
In 1965 a 13 metre long skeleton of a sei whale, washed up by the high tide at Tin Can Bay, had been collected and prepared for exhibition in the *Marine Mammals* exhibit. Organised by Campbell, it was completed in 1970, and featured the skeleton mounted against the silhouette of its body shape. Associated with it were various harpoons and other items of the old whaling industry. The four metre long lower mandible of a sperm whale that had been exhibited on the verandah for decades was cleaned and included in the arrangement. This was a 'touch' exhibit and wherever people could reach, the skeleton positively shone from the stroking of

hundreds of hands. The public welcomed this and the exhibit seems to have suffered little effect from years of handling on open display.

The *Bird Hall* was redeveloped over several years in the early 1970s by Vernon, who by now had become ornithologist. A large panel was devoted to *Flightless Birds* with cast portions of New Zealand moa and the cast of the huge egg of *Aepyornis maximus* from Madagascar. In close proximity were Australia's two large flightless birds, the emu and the cassowary. Several dioramas were constructed which featured the Golden, Satin and Tooth-billed Bower birds and the amazing diversity of bower construction. Backgrounds were painted by Susan Hiley, Mary McKenzie and Eloise Gehrmann respectively. A diorama featuring the male and female Superb Lyrebird and its repertoire of calls was also a part of this redesigned section of the museum. The background was painted by volunteer artist Mavis Vernon, wife of D.P. Vernon, who previously had painted the background of the *Hairy-nosed Wombat* diorama. The foreground rocks, vegetation, the lyre-bird mound, nest and egg were

One of a series of small habitat dioramas, the Golden Bower Bird, developed in 1970.

The Hairy-nosed Wombat, a display created in 1970 by Vernon, the background painted by his wife, Mavis Vernon.



The Durham Downs dinosaur, *Rhoctosaurus brownei*, spray painted on the wall of the gallery by staff artist, Peter Berryman, 1975.

installed by Anthony Hiller of the preparation staff. The taped calls of the male bird were activated by a remote control switch which operated when the viewer stood in front of the diorama on two large black foot-prints that had been painted on the floor. On one occasion a confused man with shoes and socks in hand was noticed standing bare-footed on the foot-prints. He looked up rather sheepishly, and enquired 'Do I really have to take these off to make the birds call?'. Other dioramas featured the Noisy Pitta, the Crimson Chat and the Black Noddy with background paintings by Margaret McKenzie. In the finch display an innovation was the inclusion in the main label of a quotation from a poem by Thomas W. Shapcott[35]:

> A tiny spill of bird things in a swirl
> and crest and tide that splashed the garden's edge,
> a chatterful of finches filled the hedge
> and came upon us with a rush and curl
> and scattering of wings.....

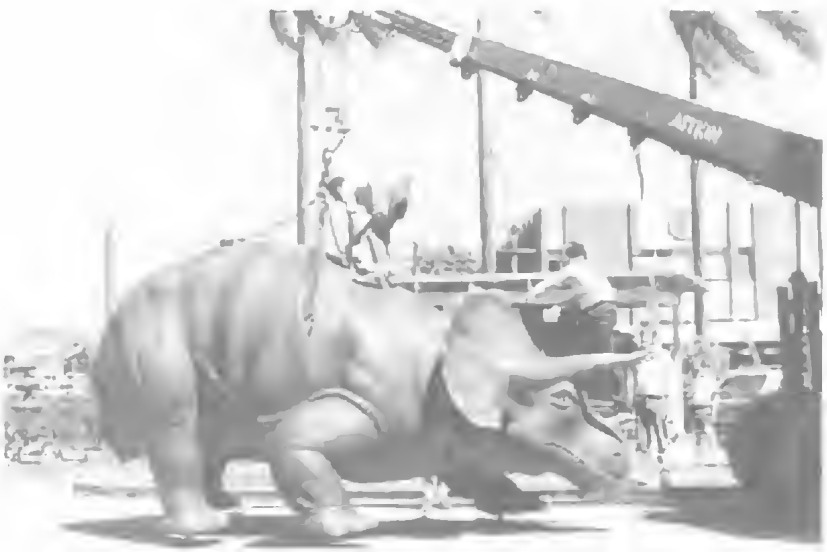
In 1976 Ingram and Campbell with Vernon had completed the innovative bird audiovisual display which featured several song birds including the Bell Miner, Pied Butcher bird, Whipbird and Kookaburra. The sequence was activated by a simple mechanical switch under the floor in front of the first wall case. As each bird species lit up, the appropriate calls were heard. Another section of this unit allowed the visitor to project any one of a series of 80 colour slides of birds. Nearby, the language of birds—in this instance the Noisy Miner—was interpreted in two wall cases showing how birds call and how they convey information to other birds of the same species by their body postures. Dr D.D. Dow of the University of Queensland, who had studied the extensive vocabulary of the Noisy Miner, gave invaluable assistance. From this time bird 'touch' specimens were also put on open display—such as a Barn Owl and certain specially prepared birds' eggs. *Birds* and the bird audiovisual displays were regarded as 'the best', the 'most liked' and the 'displays in which visitors spent most time' according to the visitor survey of 1977[32]. Perhaps people liked the audio-visual aspects of the display or perhaps they just liked the birds.

Also in 1974, the curator of entomology, Edward C. Dahms introduced

a touch of humour into Henry Hacker's old insect displays by redesigning them with coloured cartoon characters to communicate the story line[36].

During the years 1970–1974 Michael Quinnell, curator of anthropology, organised 20 display units featuring various aspects of Melanesian anthropology. Some magnificent specimens, many from the MacGregor collection, were selected for this gallery exhibition. Specially featured was a portion of the gable end of a Sepik mens' cult house. It is a striking design, with symbolic heads painted with earth pigments on palm sheaths joined together. Other items, such as the large wooden food bowl with fretwork handles from the Admiralty Islands, and the carved figures, some inlaid with shells, show beautiful craftsmanship.

In 1975 Mary Wade, curator of geology, organised a complete modernisation of the dinosaur gallery including the Durham Downs dinosaur *Rhoetosaurus brownei*, that had originally been displayed by Longman and successively reorganised and added to by Woods and Bartholomai. A life-size mural painting of *Rhoetosaurus* was spray-painted on the wall by Peter Berryman, fossil bones collected at Taloona Station in 1924 were displayed in the foreground, and a cast of the Lark Quarry dinosaur trackways was set up (see Chapter 7). The brick-red colour-impregnated polyester cast of the dinosaur trackways was first moulded in latex from the mudstone surface in the field by Tebble and assistants. Associated with the dinosaur exhibit, Wade organised a display on the *Cretaceous Marine Reptiles*—a plesiosaur, a pliosaur, an ichthyosaur and some fossil bones of each from western Queensland, which, one hundred million years ago, when Australia was connected to Antarctica, had been covered by the sea.



Models from Jonas Bros. New York, assembled in the museum grounds. *Left: Triceratops*, purchased in 1976 (*L to R*: T. Tebble, A. Bartholomai, B. Campbell, M. Quinnell); *above: Tyrannosaurus rex*, purchased in 1978 with funds granted by the Utah Foundation.

There was a new and spectacular development in the display of dinosaurs when, in 1976, with funds earned through a consultancy[37], a life-sized fibre-glass model of *Triceratops* was purchased from Jonas Bros., New York, for about $15,000. In 1978 a second model, of the carnivorous *Tyrannosaurus rex*, was purchased for a similar sum with a grant from the Utah Foundation. Both models, exhibited in a prey-predator confrontation as may have occurred in the late Cretaceous Period, were set up in the museum grounds adjacent to the main entrance and near the tank *Mephisto* and the beam engine.

The last new display to be mounted in the museum's Gregory Terrace building was of Kingsford Smith's biplane AVRO *Avian* VH UQG—*Southern Cross Minor*—in which he had attempted his 1931 Australia-England flight. Wixted, whose efforts resulted in its acquisition for the museum, says of the aircraft 'that it is the sentinel to Lancaster's final heroic days and a symbol of the successes and failures of the pioneering of aviation'[38].

William Newton Lancaster had acquired the plane for his attempt on the England–Capetown record. He left on 11 April 1933, but two days later he disappeared over the Sahara desert. In February 1962 his body, half buried in the sand beneath the wing of his crashed plane, was found by a motorised patrol of the French Foreign Legion.

Wixted, already with the two historic Hinkler aircraft in the museum's collection, obtained information on the wrecked aircraft through the French Embassy in Canberra and in 1972 he involved Australian crews in the UDT World Cup Motor Rally, which was crossing the Sahara. In November 1975 a 14-member volunteer expedition—organised by Wylton Dickson, Australian organiser of the UDT Rally—set out from London. The expedition, in its two four-wheel drive vehicles located and recovered the wreck. Three years after—released at last by Algerian customs authorities—the remains of the aircraft reached London and were displayed there, at Australia House, in May–June 1979. QANTAS flew the crated remains to Australia. On 11 February 1980, the anniversary of its discovery in the desert, a display featuring the *Southern Cross Minor* as it was found by the French patrol 18 years before, opened in the museum.

In the Exhibition building, continuing a tradition begun in the museum when it was in the old Post Office building in the 19th century, live animals have been displayed from time to time. There were live pythons and, from 1926, Queensland lungfish, *Neoceratodus*, exhibited on the verandah of the exhibition hall. In 1946 freshwater tortoises were also displayed. One of the large aquaria used for displaying these specimens—the one for the lungfish—was donated by the Bancroft family, the descendants of the museum board member of 1876–94. In a corner of the lower gallery, just inside the building—

Errol Beutel (assistant, history and technology) and Robert Wood (attendant) contemplate part of the remains of Kingsford Smith's *Southern Cross Minor*—the AVRO *Avian* VHUQG, in which Lancaster lost his life in the Sahara desert in 1933. The 'as found' display of the crash site was opened on 11 February 1980, 18 years after it was chanced upon by a patrol of the French Foreign Legion.

Welcome Swallows (*Hirundo neoxena*) have nested every year for the last 15 years. They don't stay here all year, but leave during May and return in August to use a small mud nest in a corner of the lower gallery. The swallows are very noisy when they first return at the end of winter. For a few days they chirp and sing volubly, mostly from perches close to the nest. Then they become relatively quiet as the female begins to repair and refurbish the nest. She gathers feathers and grass, which she stores on a nearby cupboard. Mud, collected from outside, is mixed with the grass and feathers to make a paste with which to repair the nest. Soft downy plants and feathers are used for nest lining[39].

Latex mould of the Winton dinosaur trackways laid out in the museum grounds prior to casting in glass fibre resin.

## The Future

From 1978 the museum, now armed with the experience that many of its staff had acquired through visits to many institutions in Europe and the American continent, turned its attention with increasing focus and tempo, to the preparation of new displays to open in the new building in the Queensland Cultural Centre. Campbell assumed responsibility for the programme.

The planning of displays for the new building started before the building itself was defined. It was difficult to imagine what the displays should be like. The absolute freedom to select from many philosophies and approaches made decisions difficult. Most museum staff agreed that displays should be attractive and informative, should educate through entertainment, should proceed from the known to the unknown, should, if possible, be of interest to specialist and uninformed audiences alike, should appeal to young and old, should be integrated with academic curricula but not confined to them, should be for the benefit of Queenslanders and interstate and overseas tourists, should project the museum's image into the twenty-first century, and must be based on the objects in the collections—interpreting and placing them in a context that would lead the viewer to a greater understanding of his environment—both natural and man-made. A tall order, indeed.

To plan and build displays, in the shapeless voids of a yet-to-be designed building, building blocks were needed. What, was asked, are the

units of a display—the units of visual excitement and information? Clearly, the object itself is the basis of the display—it has been collected and preserved as the irrefutable evidence of truth. However, to present this truth and to show otherwise unseen aspects of the object—its usage and significance—interpretative information is needed in words or texts, graphics or illustrations or by association of groups of objects to suggest relationships of form, function or design. Definition of the unit of display is also limited by the viewer's experience and subjective perception. From these considerations the unit can be defined as an *Immediately Perceivable and Obviously Cohesive Assemblage of Material items*—an IPOCAM. A catalogue of such natural assemblages of articles held in the collections was compiled. The only limitation was the size of the collections—and the lists kept growing.

The IPOCAMS gradually fell into natural sequences—they could be laid end to end and tell the whole story of change—the earth and the geological history of Queensland with its fossil evidence of past life, the present animal life of Queensland and how its diversity has been achieved and maintained by a variety of solutions to the problems of being alive, the people of Queensland before and after European settlement and how they used the land and technology to improve their standards and way of life.

It was now toward the end of 1978, the building plans had progressed to the stage where approximate floor areas were known and planning to lay out the 'grand story of the meaning of everything' began. There were three display floors. Working in sequence from the beginning, essential geology and palaeontology IPOCAMS could be fitted into the first two floors leaving the third floor for half of the animals. Starting from the other end and working backwards, post-European settlement and technology took up the top floor, pre-European peoples barely fitted the middle floor and again there could be only half of the animals on the first floor. Cutting the story back to fit the physical space left so many holes that the 'grand story' became incoherent. Some drastic rethinking was needed—it was now well into 1979.

Preparation of cast of a meat ants' nest. *Below right*: washing out the latex cast; *below*: the cast prepared for display.

Visitor behaviour was surveyed and it was found that the average visitor spends less than two hours at the museum, at intervals greater than four years apart—hardly long enough to absorb the 'grand story' in its entirety. Few visitors came with specific expectations, and their pattern of movement from display to display was usually unrelated to any continuous theme—indeed they may not even have perceived the themes.

Spectacular, magnificent, splendid displays in museums all around the world survive fifty years and more. If the major items and memorable displays have such a long life expectancy it is not surprising that the impression of museums is that they never change; and that having been taken to a museum as a child there is no need to revisit it until one's own children are old enough to be taken—as witness the experience of generations of visitors to the Queensland Museum who first had seen the *Aboriginal Campsite* as children. Had the galleries been large enough to show sufficient items from the collections to illustrate 'the grand story of life and everything' the new museum would be complete. There would be no need to change anything—and a museum that doesn't change is not worth a revisit.

So, in order to remove any temptation to attempt the grand theme in the display design, the three display floors in the new building were chopped into fifteen rooms of varying sizes from 250 to 400 square metres and were called 'pods'. Each pod was assigned a theme on a completely random, arbitrary basis—on the lower gallery there would be photography, fishing and transport; on the middle gallery, engines, giant termite mounds, rat plagues and rainforest Aborigines; and on the upper gallery, Mesozoic fossils, minerals, birds and Melanesian anthropology.

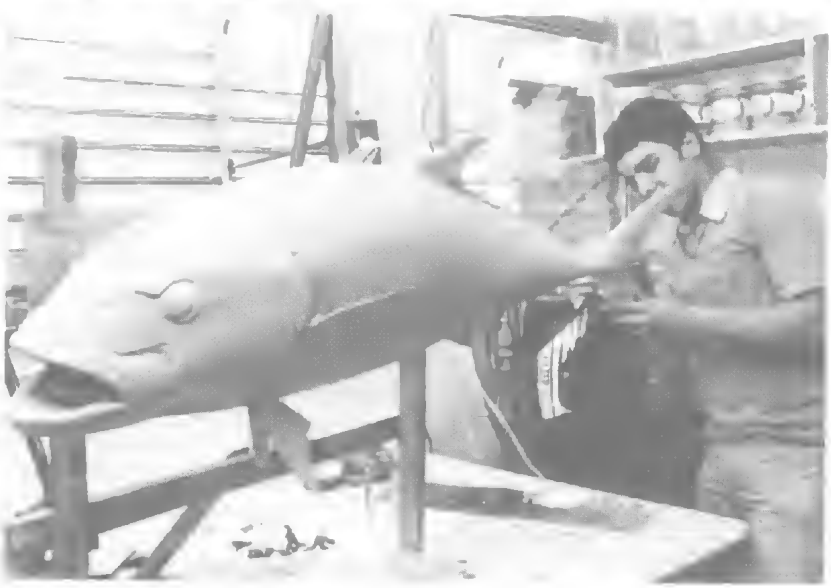
Because there is no logical sequence or association of themes, one pod can be replaced with minimal disruption—and looking to the future the commitment is to do this every few years. Regular visitors will then find two or three new pods every year and the number of regular visitors may increase; and, as they become absorbed in the contents of the small, self-contained pods with their simple, obvious themes perhaps the average visitor will spend more time at the museum than once he would have.

The advantage of having a few well developed display themes is offset by the disadvantage of having to exclude many otherwise interesting themes for which there could be strong public demand. Many favourites from the old museum building, as well as new favourites not included in other themes, have been kept in one large pod. Another pod contains reference material—specimens, books, photographs, leaflets—on all the topics covered by the museum's collections that might be of interest. Here the public can learn to identify their own specimens by comparing them with the collections and can also consult museum staff.

At the beginning of the new display programme it was realised that to create 5,000 square metres of display in four years was going to take more staff than the number involved in maintaining the 2,000 square metres in the old building. With some augmentation the strong preparation section under Tebble handled display construction and installation, but the small, capable art section had no experience of designing major displays. Architect R. Belcher was appointed to design building and display furniture and in 1979 the art/design section was increased from four to ten, with D. Bligh as senior artist and R.A. Coleman as designer. Coleman subsequently took over the newly formed maritime archaeology section and was replaced as designer by D.L. Gilbert. The south wing of the old building, formerly the home of the Queensland Art Gallery, was converted

Preparing a cast of a termite mound. *Above*: applying latex; *below*: removing the fibreglass jacket.

Mounting the cast of the Queensland dinosaur, *Muttaburrasaurus* for the new galleries in South Brisbane—a 'man at work' display in 1985, before the museum closed to the public.



Paul Stumkat, cadet preparator, working on the cast of an Amberjack for the displays in South Brisbane.

into an art studio and set-up area, with darkrooms and photographic studio—although the metal halogen lights installed in the six metre high ceiling, to dispel the gloom of the old building, cast multiple shadows on the drawing boards and were disastrous for accurate colour photography.

As displays went into production M.J. Schofield, in the technology section's metal workshop, fabricated some of the components, as did the artificers, P. Quinn and D. Adsett. Although the old carpenter's shed was cramped, all the woodwork components were prefabricated units, small enough to transported to the new building. Finally, in 1982, W.A. Brooker was appointed to the new position of electronics technician to develop microprocessor controlled modules for lighting, audio, video and projectors.

In the early stages—between 1980 and 1982—there were many false starts. Displays were planned and shelved, planning processes were tried and rejected, but eventually effective procedures evolved. Concepts were proposed by curators and later approved by a display committee, and each concept was developed, designed and transformed into a display by a working group consisting of a curator to provide information, select specimens and ensure accuracy; a design artist; a communication expert from the education section; a preparator; and a co-ordinator to schedule progress and report back to the display committee. A working manual was produced before each pod was constructed, and full working drawings of all components were prepared so that the architects of the new building could be kept informed of the requirements for room and case sizes.

As each component of each pod was produced it was inspected, approved, and stored in a warehouse at West End. To protect this huge investment in time, money, effort and skill, regular inspections of the stored displays were made to ensure that insect pests, fungus, and rats had not been active.

Complete installation manuals were compiled for each pod. These included detailed drawings for assembly; estimates of time and the number of people needed for installation; lists of all materials—paints and tools—required; and they recorded the location of all items—constructed components, finished art work, and those in collection storage or on display in the old building. Installation of the pods in the new building was co-ordinated with the fitout of the galleries by the Department of Works and each took eight weeks to install.

Most of the displays being created for the new building were based on items already in the collection, but many of these were in existing displays. Efforts were made to leave the old displays intact for as long as possible, but by 1985 there were a lot of gaps. As compensation for the public and visitors, the big skeleton of Queensland's most complete dinosaur—*Muttaburrasaurus*—was assembled in the display gallery as a 'men at work' exhibit. This preview of one of the spectacular items being prepared for the foyer of the new building, helped keep the galleries alive for a while. In the end, Bert Hinkler's AVRO *Avian* had to be restored and cleaned ready to be hung in the new building—which meant dismantling the wall holding the whale skeleton. Inevitably, and reluctantly, the display galleries in the old museum building had to close to the public and on 3 November 1985, after nearly 85 years of continuous service, this occurred.

The philosophy, content, production and installation of displays in the new museum galleries were thus resolved. The approach is innovative. For, although some aspects of it have been developed in other parts of the world, there does not appear to be another museum that has combined

changing, semi-permanent displays of selected, non-related themes with a publicly accessible reference collection to provide continuity of coverage in all fields of interest. It will be an exciting time for the museum when it opens its new displays; and it is an exciting future that is planned to keep the people of Queensland entertained and informed.

Views of the display galleries, Queensland Museum 1984.